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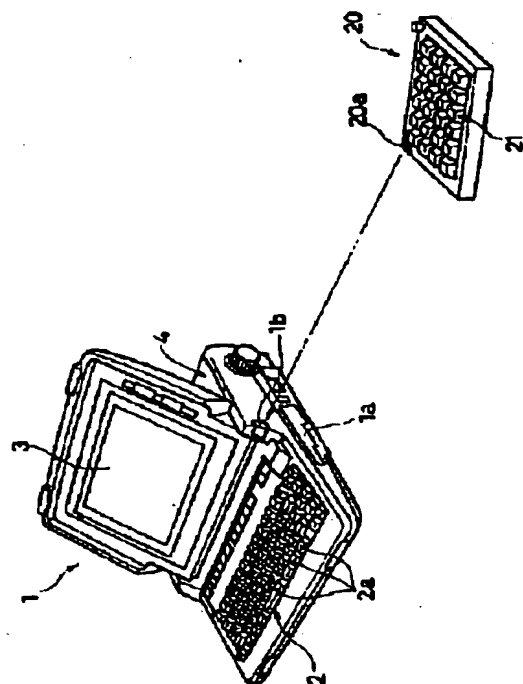
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(54) 【発明の名称】 情報処理装置

(57) 【要約】

【構成】 画像情報の入力を行う入力キー2a…を有するキーボード2と、画像情報の表示を行う表示素子3とを備えた本体装置1に対して、遠隔操作を可能にしたコードレスキー/マウスユニット20が着脱可能に設けられた情報処理装置であって、上記コードレスキー/マウスユニット20は、キーマトリックス22とマウス24とを併合して備えている。

【効果】 これにより、装置の使用者の作業効率を向上することができる。

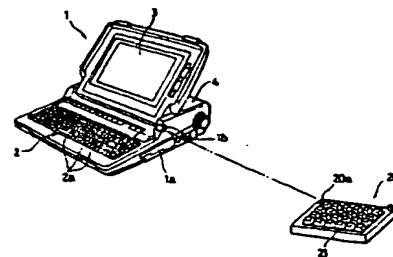


**54) INFORMATION PROCESSOR**

(11) 5-11922 (A) (43) 22.1.1993 (19) JP  
 (21) Appl. No. 3-158409 (22) 28.6.1991  
 (71) SHARP CORP (72) HIROSHI NISHIKAWA(5)  
 (51) Int. Cl.<sup>5</sup> G06F3/033, G06F3/02

**PURPOSE:** To improve the work efficiency of a user by attachably and detachably providing a cordless device which is equipped with a ten keys function and a mouse function and enables remote operations.

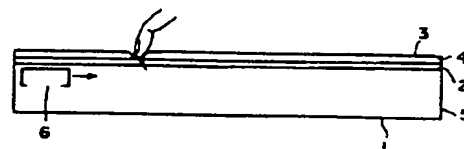
**CONSTITUTION:** A main body device 1 is equipped with a keyboard 2 having input keys 2a to input image information such as graphics or the like, display part 3 to display the image information, printer 4 to print the image information displayed at the display part, and control part to execute prescribed control to these equipments. A cordless key/mouse unit 20 is provided as the cordless device which can be housed in a housing part 1a formed at the main body device 1. The cordless key/mouse unit 20 enables the remote operations to the main body device 1 by transmitting radio waves/optical signals from a light emission part 20a to a light reception part 1b of the main body device 1. Thus, the tenkeys input operation and the mouse operation can be executed by the same input equipment, and connecting cords are prevented from being entangled.

**(54) INPUT DEVICE**

(11) 5-11923 (A) (43) 22.1.1993 (19) JP  
 (21) Appl. No. 3-190822 (22) 5.7.1991  
 (71) SONY CORP (72) ICHIRO KUBOTA  
 (51) Int. Cl.<sup>5</sup> G06F3/033

**PURPOSE:** To surely execute inputting with simple operation by arranging fluid between a plane board and a film, removing the fluid by pressing the film, and reading the pressed position from under the plane board.

**CONSTITUTION:** A film 3 composed of freely deformable synthetic resin or rubber, etc., is arranged on a transparent glass board 2, and white liquid 4, for example, is sealed between the glass board 2 and the film 3. The back side of the film 3 is colored in black, for example. Under the glass board 2, a scanner 6 is arranged as a read part. When the desired position of inputting is pressed with a finger in this case, the part pressed by the finger on the film 3 is recessed, and the film at the part pressed by the finger is brought into contact with the glass board 3. Since the liquid 4 is colored in white and the back of the film 3 is colored in black, the part pressed by the finger is turned to black and the untouched part is turned to white when the glass board 2 is observed from the lower side. By scanning such a state with the scanner 6, the pressed point can be easily read.



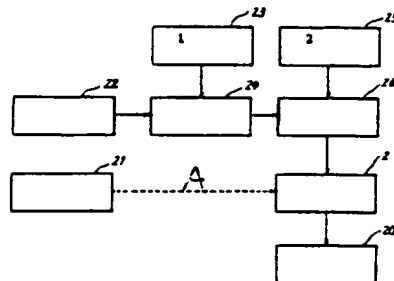
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**54) IMAGE DISPLAY DEVICE PROVIDED WITH TOUCH PANEL**

(11) 5-11924 (A) (43) 22.1.1993 (19) JP  
 (21) Appl. No. 3-159392 (22) 1.7.1991  
 (71) DEJITARU K.K. (72) YOSHIO OKADA(1)  
 (51) Int. Cl.<sup>5</sup> G06F3/033, G09G5/00

**PURPOSE:** To provide the image display device which can input data without changing a conventional menu picture and connecting a keyboard input device in an off-line mode.

**CONSTITUTION:** For this image display device, a touch panel is arranged while covering the screen of a display 20, a coordinate converting means 24 is provided to convert first coordinate data outputted by operating the touch panel to second coordinate data on the screen of a display, a code converting means 26 is provided to transform the second coordinate data to code data to be transmitted by a keyboard input device 21, and the code data are supplied to an image display control circuit 2 in a data input mode.



pp.2-3

[CLAIM]

[Claim 1]

An information processing apparatus in which a cordless device, enabling remote control operation, is provided to be removable for the main body comprising a keyboard having input keys for inputting a video information and a display unit for displaying video information, wherein said cordless device is provided with the 10-key function and mouse function.

【0008】

[PREFERRED EMBODIMENT]

A preferred embodiment of the present invention will be explained with reference to Fig. 1 to Fig. 10. In this embodiment, an information processing apparatus is applied to a Japanese Word Processor.

【0009】

A Japanese word processor in relation to this embodiment comprises, as shown in Fig. 1, a main body device 1 and a cordless key/mouse unit 20 as the cordless device which may be accommodated in the accommodation section 1a formed to this main body device 1. The remote control operation of the main body device 1 by the cordless key/mouse unit 20 can be realized by transmitting the electromagnetic signal/optical signal (indicated by the chain line) from a light emission part 20a of the cordless key/mouse unit 20 to a light reception part 1b of the main body device 1.

【0010】

The main body device 1 explained above comprises a keyboard 2 having input keys 2a... for inputting video information such as characters and figures, a display element 3 as the display unit for displaying the video information, a printer 4 for printing the video information displayed on the display element 3 and a control section 5, described later, to be arranged in the apparatus 1 for conducting the predetermined control processing to the video information.

【0011】

As shown in Fig. 2, the control section 5 is composed of a microprocessor 6 which is a CPU (Central Processing Unit) for functioning entire operations of the apparatus 1, an oscillation

circuit 7 for offering the basic clock of the apparatus 1 to the microprocessor 6, a ROM (Read Only Memory) 8 for enabling operations of the microprocessor 6 by storing operation program of the apparatus 1, CG (Computer Graphics) and dictionaries, a RAM (Random Access Memory) 9 composed of document information and control information of word processor to enable operations of the microprocessor 6, a KEY controller 10 for controlling the keyboard 2, a display controller 11 for controlling the display element 3, a printer controller 12 for controlling the printer 4, an FDC (Floppy Disk Controller) 14 for connecting an FDD (Floppy disk Device) 13 as an input of the apparatus 1, an electromagnetic wave/optical signal control circuit 16 for controlling the electromagnetic wave/optical-electric converting circuit 15 and various control circuits 17 for controlling memory, I/O and the other units. The electromagnetic wave/optical-electric converting circuit 15 is comprised in the main body device 1 in order to convert the electromagnetic wave/optical signal transmitted from the cordless key/mouse unit 20 explained later into an electric signal.

**【0012】**

The cordless key/mouse unit 20 explained above is provided with a rectangular parallelepiped shape housing 21 as shown in Fig. 3(a),(b),(c). At the upper surface side thereof, a key matrix 22 consisting of a plurality of input keys 22a... and a key/mouse switch button 23 are provided and at the center of lower surface side, a spherical mouse 24 is provided.